



CATALOGUE NO. 8212.0

11.30 A.M. 6 DECEMBER 1983

**NATIONAL ENERGY SURVEY:
HOUSEHOLD APPLIANCES, FACILITIES
AND INSULATION
AUSTRALIA
JUNE 1983**

HISTORICAL COPY
**Do not remove
or deface**

PHONE INQUIRIES *for more information about these statistics*—contact Mr Mike Rombouts on Canberra (062) 52 5653 or any of our State offices.
other inquiries including copies of publications—contact Information Services on Canberra (062) 52 6627 or in any of our State offices.

MAIL INQUIRIES *write to* Information Services, ABS, P.O. Box 10, Belconnen, A.C.T. 2616 or any of our State offices.

CONTENTS

<i>Table</i>		<i>Page</i>
..	Main features	1
..	Explanatory notes	1
..	Comparison between June 1983 and November 1980 survey results	3
1	Major appliances and facilities, November 1980 and June 1983	4
2	Cooking appliances by type of fuel by metropolitan/non-metropolitan areas, June 1983	6
3	Details of refrigerators by metropolitan/non-metropolitan areas, June 1983	7
4	Details of washing machines by metropolitan/non-metropolitan areas, June 1983	8
5	Hotwater systems by type of energy used by metropolitan/non-metropolitan areas, June 1983	9
6	Washing machines by hot and cold water usage, June 1983	10
7	Details of clothes dryers by metropolitan/non-metropolitan areas, June 1983	11
8	Air-conditioning by type, June 1983	12
9	Room heating, main type by secondary type, June 1983	13
10	Material of outer walls by type of ceiling insulation, June 1983	15
11	Material of outer walls by type of wall insulation, June 1983	17
12	Main heating, electric, by type, June 1983	19
13	Main heating, oil, by type, June 1983	19
14	Main heating, gas, by type, June 1983	20
15	Cooking and heating by type of gas used, June 1983	20
16	Energy used by type, by metropolitan/non-metropolitan areas, June 1983	21
..	Appendix 1—Technical note on sampling variability	22

MAIN FEATURES

Microwave ovens were being used in some 500,000 households according to the June 1983 survey, compared with only 165,000 in November 1980. This contrasts with the proportions of households in Australia using electric frypans and vertical grills, each of which have declined by about 2%.

About 850,000 households had *dishwashers* in June 1983—some 210,000 more than in November 1980.

While the proportion of households with *washing machines* has changed little since November 1980, there has been a marked shift to automatic washing machines away from other types.

There has been an increase of 7.5% in the proportion of households across Australia with *rotary clothes dryers* and a small decrease in the proportion of households with cabinet dryers. Overall, the June 1983 survey measured an increase of 6.7% in the proportion of households using clothes dryers of one sort or another.

About 320,000 more households had *air-conditioning* in June 1983 than in November 1980.

EXPLANATORY NOTES

Introduction

In June 1983 the ABS conducted a survey throughout Australia to obtain information about the numbers and types of selected domestic appliances held by households. Interviews were carried out over a period of two weeks beginning on 6 June. This publication contains the results of that survey.

2. This is the second National Energy Survey of Households to be undertaken by the ABS, the first being in November 1980.

Scope and coverage

3. The survey was conducted as part of the regular ABS population survey, which is based on a multi-stage area sample of private dwellings (about 35,000 houses, flats, etc.) and non-private dwellings (hospitals, hotels, motels, etc.) and covers about two-thirds of one per cent of the population of Australia.

4. For the purposes of this National Energy Survey certain types of dwellings were excluded, such as non-private dwellings, caravan parks, dwellings occupied by more than one household, and dwellings occupied by diplomatic personnel and by persons from overseas holidaying in Australia.

5. Information was sought from all selected single household dwellings with regard to the following items:

- (a) major domestic appliances;
- (b) water heating facilities;
- (c) room heating;
- (d) air-conditioning;
- (e) insulation; and
- (f) swimming pools.

6. In addition, details were sought on the consumption of reticulated electricity and gas by households for the most recent 12 month period available. These consumption details were obtained from the relevant energy supplying authorities where permission to approach the authorities was given by respondents. Results will be published later (see paragraph 17).

7. Households were approached by trained interviewers. In each household, the particulars (including permission to obtain energy consumption details of the household from energy supplying authorities) were sought from an adult member.

Reliability of estimates

8. Since the estimates are based on a sample they are subject to sampling variability (see Appendix I for further details). Some figures in this publication are replaced or preceded by the symbol (*). Estimates preceded by this symbol have a standard error of between 25 and 40 per cent and care should be exercised in using them because they are subject to such high errors. Estimates which are replaced with this symbol have a standard error greater than 40 per cent.

9. In addition to the sampling errors, the survey results are subject to non-sampling errors: inaccuracies may occur because of imperfections in reporting by interviewers and respondents and errors made in the coding and processing of data. These inaccuracies may occur in any enumeration, whether it be a full count or only a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and efficient operating procedures.

Definitions

10. *Shared hot water system.* One in which hot water is provided from a single heating or storage unit to a number of dwellings via their individual plumbing systems.

11. *Air-conditioning.* Classified to one of the following two types:

- (a) ducted (i.e. 'central') in which air cooled by an air-conditioning unit is circulated to outlets in a number of rooms via ducting; and
- (b) non-ducted (single) units, which may be portable or built into a wall or window, or which mainly provide cooling only to the rooms in which they are located.

12. Both types of air-conditioning can be further classified as:

- (a) *Evaporative air-conditioning* - which uses water and where the water needs to be regularly replenished; or
- (b) *Refrigerative air-conditioning* - which does not use water. Air is cooled by passing over gas filled tubing. Reverse cycle air-conditioners are also included in this category.

13. *Central heating*. Where all or most rooms are heated by a single heating unit. There are several types of central heating:

- (a) *Ducted*—heating from the central unit (normally through pipes under the floor or in the roof) to a number of rooms in the dwelling;
- (b) *In-floor heating*—concrete floors can enclose either an electric grid or pipes through which hot water is passed. The heat is then conducted through the concrete; or
- (c) *Above-floor electric grid*—laid on top of the floor, and covered by carpet, etc.

14. Types of insulation:

- (a) *Foil*—a flexible, reflective metal sheet;
- (b) *Batt/blanket*—asbestos, wool or glass fibre, or similar material;
- (c) *Granular/loose fill*—fine grain material blown into the roof or wall cavity in a loose form; or
- (d) *Foam*—pumped into the ceiling/walls in a liquid form, later to solidify.

15. *Metropolitan/non-metropolitan area*. In any State, the metropolitan area is defined as being the Capital City Statistical Division. All other Statistical Divisions are classified as non-metropolitan. (NOTE: for the purposes of this publication all details for N.T. and A.C.T. have been included in metropolitan).

Interpretation of results

16. When examining the estimates contained in this bulletin, the reader should be aware that:

- (a) this survey measured the appliances held (i.e. owned, rented or hired) by a household. A household was only enumerated once for each type of appliance, irrespective of the number held. Therefore, the dominant count is the number of households. The tables do not accurately reflect the number of appliances;
- (b) appliances in working order were reported even if they were not used by the respondent. In addition, if an appliance did not work at the time of interview but the respondent expressed the intention to have it repaired, it was included in the survey response.

Related publications

17. Data collected by this survey will be released in two stages. The first stage comprises the details of appliance data presented in this publication. Stage two will present an analysis of household energy consumption. An ABS publication (Cat. No. 8213.0) containing details of consumption data cross-referenced with household appliance data will be released in early 1984.

18. Current publications produced by the ABS are listed in the *Catalogue of Publications, Australia* (1101.0). The ABS also issues, on Tuesdays and Fridays, a *Publications Advice* (1105.0) which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

Symbols and other usages

- .. not applicable
- nil or rounded to zero
- * subject to high sampling variability (see paragraph 8).

19. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

R. J. CAMERON
Australian Statistician

COMPARISON BETWEEN JUNE 1983 AND NOVEMBER 1980 SURVEY RESULTS

Comparisons are shown in this publication where possible between data collected in the November 1980 survey and the June 1983 survey. However, readers need to bear in mind the following differences in the content of the two surveys. Though not quantifiable, these differences will have an effect on comparability between the results obtained in 1980 and 1983.

Major content differences between November 1980 and June 1983 surveys

Heaters—The June 1983 survey identified for the first time the type of main and secondary room heating. Apart from electric heaters the distinction between fixed and portable heaters was no longer made in the June 1983 survey.

Refrigerators—In the November 1980 survey refrigerators were only counted if they were in continuous use. Among those counted, a further distinction was made between electric refrigerators and others. The qualification regarding continuous use and the distinction between electric and other was not made in the June 1983 survey.

Stoves, Hotplates and Ovens—In the November 1980 survey a stove which incorporated both an oven and hotplates was counted as one unit (a stove). In addition, in November 1980 separate details were obtained for ovens and hotplates where these did not constitute a single 'stove' unit. In the June 1983 survey, hotplates and ovens were treated separately irrespective of whether or not they were part of a single 'stove' unit.

Wall and Ceiling Insulation—In the November 1980 survey questionnaire a distinction was made between those households which did not know whether they had insulation and those households which knew they had insulation but did not know the type. In the results from the June 1983 survey no such distinction was made. The category 'Do not know' which appears in tables 10 and 11 of this publication is comparable to the combined categories 'Type unknown' as collected in the questionnaire and 'Not known if insulated' from the November 1980 survey. It should be noted however that (a) 'Type unknown' as collected has been included in the category 'Other' in table 8 of the November 1980 publication (8212.0) and (b) due to a transcription error, data for category 'Not known if insulated' were shown against category 'No insulation', and vice versa, in tables 7 and 8 of the November 1980 publication (8212.0).

TABLE 1 : MAJOR APPLIANCES AND FACILITIES, NOVEMBER 1980 AND JUNE 1983
(' 000 households)

	N.S.W.		Vic.		Qld		S.A.		W.A.	
	Nov. 1980	Jun. 1983	Nov. 1980	Jun. 1983	Nov. 1980	Jun. 1983	Nov. 1980	Jun. 1983	Nov. 1980	Jun. 1983
Refrigerator(b)—										
One door(c)	..	787.5	..	685.6	..	326.6	..	212.1	..	210.7
Two door(c)	..	735.7	..	474.1	..	321.9	..	182.8	..	159.5
Combination	..	230.9	..	128.5	..	129.7	..	67.7	..	64.3
Total(d)	1,666.1	1,754.0	1,242.3	1,288.2	710.3	778.3	441.2	462.6	407.1	434.5
Freezer—										
Top opening	..	538.9	..	393.6	..	291.5	..	157.1	..	137.3
Front opening	..	236.5	..	161.1	..	91.9	..	81.7	..	64.9
Total	690.2	775.4	503.9	554.7	333.1	383.4	206.8	238.8	180.9	202.2
Oven(b)	..	1,744.0	..	1,282.6	..	770.2	..	460.7	..	431.5
Hotplates(b)	..	1,722.3	..	1,261.3	..	758.4	..	459.8	..	424.5
Microwave oven(e)	71.8	228.8	33.6	84.2	25.4	74.3	12.6	34.7	14.9	56.1
Electric frypan/skillet(e)	682.6	680.3	401.6	382.5	359.1	377.4	185.5	187.2	161.4	156.5
Vertical grill(e)	166.9	134.7	103.2	78.4	50.8	46.8	50.6	39.8	28.5	24.7
Crockpot(e)	82.6	107.5	40.4	53.9	44.6	52.2	26.7	31.4	20.5	27.9
Dishwasher	227.9	308.3	190.5	246.5	108.4	142.3	39.4	53.8	39.5	57.0
Washing machine—										
Automatic	995.1	1,196.5	764.1	893.9	368.6	493.3	194.4	249.0	193.7	261.5
Other	526.4	406.8	359.5	270.2	300.5	237.3	218.4	186.6	178.8	139.8
Total	1,521.6	1,603.3	1,123.6	1,164.1	669.0	730.6	412.8	435.6	372.5	401.3
Clothes dryer—										
Rotary	625.0	762.5	488.7	591.4	198.4	306.4	133.2	180.6	80.5	122.5
Cabinet	76.0	70.9	60.6	43.8	11.6	11.1	28.6	24.7	10.3	8.8
Total	701.1	833.4	549.3	635.2	210.1	317.6	161.8	205.3	90.8	131.3
Hotwater system—										
Shared	38.1	46.8	36.2	35.4	15.8	15.1	4.2	4.4	8.0	3.1
Non-shared	1,584.6	1,688.7	1,204.4	1,249.0	683.3	746.7	432.0	454.0	398.9	428.1
Total	1,622.8	1,735.5	1,240.5	1,284.4	699.1	761.8	436.2	458.4	406.9	431.2
Main heating(b)—										
Oil	..	128.0	..	95.4	..	18.5	..	47.3	..	56.4
Electric	..	1,084.8	..	295.2	..	395.3	..	197.8	..	132.6
Gas	..	173.5	..	717.4	..	10.4	..	113.5	..	66.7
Woodfire/solid fuel	..	193.4	..	150.4	..	38.7	..	75.8	..	93.0
No heating	48.2	70.8	9.6	5.6	184.8	223.9	9.5	6.2	26.0	32.5
Air-conditioning	453.2	518.5	323.1	472.4	103.1	124.9	224.6	291.2	156.1	161.5
Wall insulation(b)(f)	138.6	165.0	185.0	211.9	52.4	67.9	32.6	41.0	17.2	18.6
Ceiling insulation(b)(f)	541.8	608.5	654.0	695.9	97.4	119.2	227.9	248.4	154.2	159.9
Swimming pool—										
With filter	142.5	198.6	102.0	117.1	55.9	75.5	29.8	32.8	45.3	51.3
No filter	9.4	3.9	12.0	6.0	2.9	*1.6	*	*	*	*
Total	151.9	202.5	114.0	123.1	58.8	77.1	30.3	33.4	47.0	51.8
Total households	1,676.7	1,762.2	1,249.0	1,293.9	722.5	780.5	443.0	463.5	412.8	435.6

For footnotes see end of table.

TABLE 1 : MAJOR APPLIANCES AND FACILITIES, NOVEMBER 1980 AND JUNE 1983—continued
(' 000 households)

	Australia									
	Tas.		N.T.		A.C.T.		Nov. 1980		Jun. 1983	
	Nov. 1980	Jun. 1983	Nov. 1980	Jun. 1983	Nov. 1980	Jun. 1983	Number	% (a)	Number	% (a)
Refrigerator(b)—										
One door(c)	..	85.7	..	14.7	..	31.8	..	..	2,354.6	47.3
Two door(c)	..	44.4	..	13.0	..	36.0	..	..	1,967.4	39.5
Combination	..	7.5	..	5.3	..	6.1	..	..	640.0	12.8
Total(d)	131.7	137.6	29.4	33.0	69.6	73.9	4,697.7	99.2	4,962.0	99.6
Freezer—										
Top opening	..	70.2	..	13.5	..	21.4	..	..	1,623.4	32.6
Front opening	..	13.9	..	6.0	..	11.2	..	..	667.2	13.4
Total	76.9	84.2	18.2	19.5	28.6	32.5	2,038.7	43.0	2,290.7	46.0
Oven(b)	..	137.3	..	33.2	..	73.7	..	..	4,933.1	99.0
Hotplates(b)	..	134.9	..	33.2	..	73.9	..	..	4,868.3	97.7
Microwave oven(e)	2.8	6.7	*	3.6	3.2	10.0	165.0	3.5	498.4	10.0
Electric frypan/skillet(e)	68.2	69.4	14.3	12.1	30.9	29.8	1,903.5	40.2	1,895.3	38.0
Vertical grill(e)	14.6	11.1	2.6	1.8	6.0	5.4	423.2	8.9	342.6	6.9
Crockpot(e)	8.1	6.7	3.2	3.4	4.4	6.1	230.4	4.9	289.1	5.8
Dishwasher	14.2	18.6	3.4	5.9	17.4	21.7	640.7	13.5	854.1	17.1
Washing machine—										
Automatic	69.0	82.2	20.4	27.0	56.0	61.2	2,661.3	56.2	3,264.7	65.5
Other	59.3	52.0	7.8	4.6	9.5	8.4	1,660.1	35.0	1,305.6	26.2
Total	128.3	134.2	28.2	31.5	65.5	69.7	4,321.4	91.2	4,570.3	91.7
Clothes dryer—										
Rotary	61.4	72.1	8.8	10.3	30.8	36.3	1,626.9	34.3	2,082.1	41.8
Cabinet	5.2	5.2	*	*	2.8	2.1	195.4	4.1	167.2	3.4
Total	66.6	77.2	9.1	10.9	33.6	38.4	1,822.3	38.5	2,249.3	45.2
Hotwater system—										
Shared	*	*0.7	*	*	*	*1.4	104.6	2.2	107.5	2.2
Non-shared	130.7	135.6	28.0	32.1	68.8	72.6	4,530.6	95.6	4,806.8	96.5
Total	131.7	136.3	28.6	32.7	69.4	74.0	4,635.1	97.8	4,914.3	98.7
Main heating(b)—										
Oil	..	20.7	..	*1.3	..	12.6	..	..	380.2	7.6
Electric	..	48.7	..	2.2	..	47.4	..	..	2,204.0	44.2
Gas	..	7.2	..	*	..	4.2	..	..	1,093.3	21.9
Woodfire/solid fuel	..	59.6	..	*0.9	..	7.8	..	..	619.7	12.4
No heating	*	*	21.2	28.6	*	*	349.8	7.4	368.0	7.4
Air-conditioning	*	1.2	15.6	19.7	11.4	17.7	1,288.3	27.2	1,607.0	32.3
Wall insulation(b)(f)	16.7	19.9	2.8	2.9	6.2	10.3	451.4	9.5	537.5	10.8
Ceiling insulation(b)(f)	47.8	53.1	11.1	11.1	48.8	48.5	1,783.1	37.6	1,944.6	39.0
Swimming pool—										
With filter	5.0	6.0	4.2	5.3	4.9	5.4	389.4	8.2	492.0	9.9
No filter	*	*0.6	*	*	-	-	27.9	0.6	13.4	0.3
Total	6.1	6.7	4.3	5.5	4.9	5.4	417.3	8.8	505.4	10.1
Total households	133.4	138.0	30.1	33.3	69.7	74.0	4,737.3	100.0	4,981.1	100.0

(a) Percentage of total households. (b) Refer to 'Comparison between June 1983 and November 1980 survey results'. (c) Refers only to external doors. (d) Non-electric refrigerators are excluded from 1980 figures. (e) Included only if used more than once a week. (f) Excludes households in flats and mobile and improvised dwellings.

TABLE 2. COOKING APPLIANCES BY TYPE OF FUEL BY METROPOLITAN/NON-METROPOLITAN AREAS, JUNE 1983
(' 000 households)

Type of appliance	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	%(a)
METROPOLITAN										
Electric hotplates	818.4	352.1	259.3	153.0	200.7	52.4	27.5	70.7	1,934.2	38.8
Gas ring/burner	312.6	565.5	103.1	180.9	115.1	*0.6	5.7	3.1	1,286.5	25.8
Oven—										
Electric(b)	823.8	412.5	260.7	157.0	211.3	52.6	27.8	70.7	2,016.5	40.5
Gas	301.8	500.4	100.3	175.3	101.0	*0.6	5.4	2.7	1,187.5	23.8
Wood	*	*2.4	*2.0	*1.2	4.0	*	—	*	11.3	0.2
Other	*	*	*	*	—	—	—	—	*	..
Total	1,127.0	915.4	363.4	333.6	316.3	53.6	33.2	73.7	3,216.1	64.6
NON-METROPOLITAN										
Electric hotplates	490.7	214.2	336.8	98.7	37.8	77.1	..	..	1,255.4	25.2
Gas ring/burner	100.5	129.5	59.1	27.2	71.0	4.7	..	..	392.1	7.9
Oven—										
Electric(b)	483.3	203.8	335.1	97.6	37.4	75.9	..	..	1,233.1	24.8
Gas	94.1	122.3	54.5	25.3	65.2	4.4	..	..	365.9	7.3
Wood	37.5	40.4	16.7	4.2	12.3	3.3	..	..	114.4	2.3
Other	*2.1	*	*	-	*	*	..	..	3.6	..
Total	617.0	367.2	406.9	127.1	115.2	83.7	..	..	1,717.0	34.5
TOTAL										
Electric hotplates	1,309.2	566.3	596.1	251.8	238.5	129.5	27.5	70.7	3,189.6	64.0
Gas ring/burner	413.1	695.0	162.3	208.1	186.0	5.4	5.7	3.1	1,678.6	33.7
Oven—										
Electric(b)	1,307.1	616.3	595.9	254.6	248.8	128.5	27.8	70.7	3,249.7	65.3
Gas	395.9	622.6	154.9	200.6	166.2	5.0	5.4	2.7	1,553.4	31.2
Wood	38.7	42.8	18.7	5.4	16.2	3.7	-	*	125.7	2.5
Other	*2.2	*	*	*	*	*	—	—	4.4	0.1
Total	1,744.0	1,282.6	770.2	460.7	431.5	137.3	33.2	73.7	4,933.1	99.0

(a) Percentage of total households. (b) Excludes microwave ovens.

TABLE 3 : DETAILS OF REFRIGERATORS BY METROPOLITAN/NON-METROPOLITAN AREAS, JUNE 1983
(' 000 households)

Ownership	N.S.W	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	% (a)
METROPOLITAN										
One refrigerator—										
One door	426.2	412.0	122.1	122.9	119.9	27.9	10.6	26.4	1,268.0	25.5
Two doors	459.7	336.3	139.1	125.8	113.1	18.4	11.9	34.3	1,238.7	24.9
Total	886.0	748.3	261.2	248.7	233.0	46.3	22.5	60.7	2,506.7	50.3
Two or more refrigerators—										
One door	66.0	58.7	26.2	25.8	27.4	3.6	4.0	5.4	217.2	4.4
Two doors	32.0	15.7	14.8	10.4	9.2	*0.5	*1.1	1.6	85.2	1.7
Combination	148.0	95.2	63.3	49.6	48.2	3.2	5.3	6.1	419.0	8.4
Total	245.9	169.6	104.4	85.8	84.8	7.3	10.4	13.2	721.4	14.5
Households with—										
a refrigerator	1,131.8	917.9	365.6	334.5	317.8	53.5	33.0	73.9	3,228.1	64.8
no refrigerator	5.2	3.9	*1.2	*	*	*	*	*	11.9	0.2
Total households	1,137.1	921.8	366.8	335.1	318.2	53.7	33.3	74.0	3,240.0	65.0
NON-METROPOLITAN										
One refrigerator—										
One door	244.9	178.3	145.6	49.3	48.7	48.6	..	..	715.4	14.4
Two doors	225.6	115.5	151.9	43.1	34.0	24.8	..	..	594.9	11.9
Total	470.5	293.8	297.5	92.4	82.8	73.4	..	..	1,310.4	26.3
Two or more refrigerators—										
One door	50.3	36.5	32.7	14.1	14.6	5.6	..	..	153.9	3.1
Two doors	18.5	6.6	16.1	3.4	3.2	*0.7	..	..	48.5	1.0
Combination	82.9	33.3	66.4	18.1	16.1	4.3	..	..	221.0	4.4
Total	151.7	76.5	115.2	35.6	33.9	10.6	..	..	423.5	8.5
Households with—										
a refrigerator	622.2	370.3	412.7	128.0	116.7	84.0	..	..	1,733.8	34.8
no refrigerator	*3.0	*1.8	*	*	*	*	..	..	7.2	0.1
Total households	625.1	372.1	413.7	128.5	117.4	84.3	..	..	1,741.1	35.0
TOTAL										
One refrigerator—										
One door	671.1	590.4	267.7	172.2	168.7	76.5	10.6	26.4	1,983.5	39.8
Two doors	685.3	451.8	291.0	169.0	147.1	43.2	12.0	34.3	1,833.7	36.8
Total	1,356.4	1,042.2	558.7	341.1	315.8	119.7	22.5	60.7	3,817.1	76.6
Two or more refrigerators—										
One door	116.3	95.2	59.0	39.9	42.1	9.2	4.0	5.4	371.1	7.5
Two doors	50.4	22.3	30.9	13.8	12.4	1.2	*1.1	1.6	133.7	2.7
Combination	230.9	128.5	129.7	67.7	64.3	7.5	5.3	6.1	640.0	12.8
Total	397.6	246.1	219.6	121.4	118.7	17.8	10.4	13.2	1,144.8	23.0
Households with—										
a refrigerator	1,754.0	1,288.2	778.3	462.5	434.5	137.5	33.0	73.9	4,962.0	99.6
no refrigerator	8.2	5.7	*2.2	*1.0	*1.1	*0.5	*	*	19.1	0.4
Total households	1,762.2	1,293.9	780.5	463.5	435.6	138.0	33.3	74.0	4,981.1	100.0

(a) Percentage of total households

TABLE 4 : DETAILS OF WASHING MACHINES BY METROPOLITAN/NON-METROPOLITAN AREAS, JUNE 1983
(' 000 households)

Type of washing machine	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T	Australia	
									Number	% (a)
METROPOLITAN										
Fully automatic—										
Front loading	61.6	49.5	14.3	13.4	21.8	2.1	1.9	4.9	169.5	3.4
Top loading	761.4	624.0	233.1	188.3	180.6	34.4	25.1	56.4	2,103.2	42.2
Total	823.0	673.5	247.4	201.8	202.4	36.5	27.0	61.2	2,272.7	45.6
Other—										
Front loading	4.5	*2.9	*1.4	2.0	1.8	*	—	*	13.4	0.3
Top loading	185.3	135.0	89.8	109.2	85.1	15.6	4.6	8.1	632.7	12.7
Total	189.8	137.9	91.2	111.2	86.9	16.0	4.6	8.4	646.0	13.0
Households with—										
a washing machine	1,012.9	811.4	338.6	313.0	289.3	52.4	31.5	69.7	2,918.8	58.6
no washing machine	124.2	110.4	28.2	22.1	29.0	1.3	1.8	4.3	321.2	6.4
Total households	1,137.1	921.8	366.8	335.1	318.2	53.7	33.3	74.0	3,240.0	65.0
NON-METROPOLITAN										
Fully automatic—										
Front loading	20.1	12.4	14.2	2.7	4.0	1.4	..	..	54.8	1.1
Top loading	353.4	208.0	231.8	44.5	55.1	44.3	..	..	937.1	18.8
Total	373.5	220.4	246.0	47.2	59.1	45.7	..	..	991.9	19.9
Other—										
Front loading	3.8	*1.7	*1.9	*1.2	*1.3	*	..	..	10.1	0.2
Top loading	213.1	130.5	144.2	74.2	51.6	35.8	..	..	649.4	13.0
Total	216.9	132.3	146.1	75.3	52.9	36.0	..	..	659.5	13.2
Households with—										
a washing machine	590.4	352.7	392.0	122.5	112.1	81.7	..	..	1,651.5	33.2
no washing machine	34.7	19.4	21.6	5.9	5.3	2.6	..	..	89.6	1.8
Total households	625.1	372.1	413.7	128.5	117.4	84.3	..	..	1,741.1	35.0
TOTAL										
Fully automatic—										
Front loading	81.7	61.9	28.4	16.2	25.8	3.5	1.9	4.9	224.3	4.5
Top loading	1,114.8	832.0	464.9	232.8	235.7	78.7	25.1	56.4	3,040.4	61.0
Total	1,196.5	893.9	493.3	249.0	261.5	82.2	27.0	61.2	3,264.7	65.5
Other—										
Front loading	8.3	4.7	3.3	3.2	3.1	0.6	—	*	23.5	0.5
Top loading	398.4	265.5	234.0	183.4	136.7	51.4	4.6	8.1	1,282.1	25.7
Total	406.8	270.2	237.3	186.6	139.8	52.0	4.6	8.4	1,305.6	26.2
Households with—										
a washing machine	1,603.3	1,164.1	730.6	435.6	401.3	134.2	31.5	69.7	4,570.3	91.8
no washing machine	158.9	129.8	49.9	28.0	34.3	3.9	1.8	4.3	410.8	8.2
Total households	1,762.2	1,293.9	780.5	463.5	435.6	138.0	33.3	74.0	4,981.1	100.0

(a) Percentage of total households.

**TABLE 5 : HOTWATER SYSTEMS BY TYPE OF ENERGY USED BY METROPOLITAN/
NON-METROPOLITAN AREAS, JUNE 1983**
(* 000 households)

Type of hotwater system	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia			
									June 1983		November 1980	
									Number	% (a)	Number	% (a)
METROPOLITAN												
Single system(b)—												
Electric	850.9	387.2	283.5	144.9	115.0	51.1	19.2	63.7	1,915.6	38.5	1,851.7	39.1
Gas	166.0	460.7	53.5	158.4	90.8	—	—	2.5	931.8	18.7	865.3	18.3
Solar—												
Electric boosted	21.1	*	10.8	6.7	66.0	*	9.7	1.7	117.1	2.3	..	..
Gas boosted	—	—	—	*	*	—	—	—	*	..	..	..
Not boosted	—	*	*	*	2.1	—	2.7	—	5.8	0.1	..	..
Total	21.1	*	11.3	7.1	68.4	*	12.4	1.7	123.5	2.5	74.7	1.6
Wood/solid fuel	*	12.3	*1.5	*	20.8	*	*	*	36.2	0.7	72.0	1.5
Other	*	*3.6	*	*	8.3	*	—	—	13.1	0.3		
Households with—												
Single system	1,039.6	865.1	350.0	310.8	303.2	51.7	31.8	68.0	3,020.3	60.6	2,863.8	60.5
Multiple system(b)	42.7	18.9	4.2	18.6	11.3	1.6	*	4.6	102.1	2.0	56.0	1.2
Households with—												
Non-shared system	1,082.3	884.0	354.2	329.4	314.5	53.3	32.1	72.6	3,122.4	62.7	2,957.3	62.4
Shared sytem	41.9	33.4	10.8	4.0	2.7	*	*	*1.4	95.1	1.9	..	..
No hotwater system	12.9	4.4	*1.8	1.7	*1.0	—	*	—	22.5	0.5	..	..
Total households	1137.1	921.8	366.8	335.1	318.2	53.7	33.3	74.0	3,240.0	65.0	..	..
NON-METROPOLITAN												
Single system(b)—												
Electric	481.0	208.4	322.7	97.3	25.6	74.3	..	..	1,209.3	24.3	1,127.2	23.8
Gas	49.3	93.7	25.4	16.4	27.5	2.0	..	..	214.2	4.3	197.8	4.2
Solar—												
Electric boosted	19.9	*3.1	18.6	3.5	19.9	*	..	..	65.0	1.3	..	..
Gas boosted	—	—	*	—	*	—	..	..	*	..	..	..
Not boosted	*	*	*	—	*1.3	—	..	..	*2.0	..	..	..
Total	20.1	*3.3	19.0	3.5	21.6	*	..	..	67.6	1.4	40.7	0.9
Wood/solid fuel	32.3	47.5	18.2	1.9	31.9	3.1	..	..	135.0	2.7	172.5	3.6
Other	*	*2.5	*	—	3.0	*	..	..	7.0	0.1		
Households with—												
Single system	583.6	355.4	385.7	119.1	109.5	79.9	..	..	1,633.2	32.8	1,538.2	32.5
Multiple system(b)	22.8	9.6	6.8	5.5	4.0	2.4	..	..	51.2	1.0	17.5	0.4
Households with—												
Non-shared system	606.4	365.0	392.5	124.6	113.6	82.3	..	..	1,684.3	33.8	1,573.3	33.2
Shared sytem	4.8	*2.0	4.3	*	*	*	..	..	12.4	0.2	..	..
No hotwater system	13.9	5.1	16.9	3.4	3.4	1.8	..	..	44.4	0.9	..	..
Total households	625.1	372.1	413.7	128.5	117.4	84.3	..	..	1,741.1	35.0	..	..

For footnotes see end of table.

**TABLE 5 : HOTWATER SYSTEMS BY TYPE OF ENERGY USED, BY METROPOLITAN/
NON-METROPOLITAN AREAS, JUNE 1983—continued**
(' 000 households)

Type of hotwater system	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia			
									June 1983		November 1980	
									Number	% (a)	Number	% (a)
TOTAL												
Single system(b)—												
Electric	1,331.9	595.6	606.2	242.2	140.6	125.4	19.2	63.7	3,124.9	62.7	2,979.0	62.9
Gas	215.2	554.4	78.9	174.8	118.2	2.0	—	2.5	1,146.1	23.0	1,063.2	22.4
Solar—												
Electric boosted	41.0	3.9	29.4	10.2	86.0	*	9.7	1.7	182.1	3.7	..	..
Gas boosted	—	—	*	*	*	—	—	—	*	..	..	..
Not boosted	*	*	*	*	3.4	—	2.7	—	7.9	0.2	..	..
Total	41.2	4.6	30.4	10.6	90.0	*	12.4	1.7	191.1	3.8	115.4	2.4
Wood/solid fuel	33.0	59.9	19.8	2.1	52.7	3.5	*	*	171.2	3.4	244.5	5.2
Other	*1.9	6.1	*	*	11.3	*	—	—	20.2	0.4		
Households with—												
Single system	1,623.2	1,220.5	735.7	429.9	412.8	131.5	31.8	68.0	4,653.5	93.4	4,402.0	92.9
Multiple system(b)	65.5	28.4	11.0	24.1	15.3	4.1	*	4.6	153.3	3.1	73.6	1.6
Households with—												
Non-shared system	1,688.7	1,249.0	746.7	454.0	428.1	135.6	32.1	72.6	4,806.8	96.5	4,530.6	95.6
Shared sytem	46.8	35.4	15.1	4.4	3.1	*0.7	*	*1.4	107.5	2.2	..	..
No hotwater system	26.7	9.5	18.7	5.1	4.4	1.8	*	—	66.9	1.3	..	..
Total households	1,762.2	1,293.9	780.5	463.5	435.6	138.0	33.3	74.0	4,981.1	100.0	4,737.3	100.0

(a) Percentage of total households. (b) Non-shared hot water systems.

TABLE 6 : WASHING MACHINES BY HOT AND COLD WATER USAGE, JUNE 1983
(' 000 households)

Water temperature	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	% (a)
Cold water	976.8	455.4	424.7	144.2	181.7	57.8	18.6	36.3	2,295.5	46.1
Hot water—										
Heated by machine	80.8	60.5	21.3	27.5	24.9	2.8	*0.8	5.0	223.6	4.5
Not heated by machine	545.7	648.1	284.6	263.9	194.8	73.6	12.1	28.4	2,051.3	41.2
Total	626.6	708.6	305.9	291.3	219.7	76.4	12.9	33.4	2,274.8	45.7
Total households with a washing machine	1,603.3	1,164.1	730.6	435.6	401.3	134.2	31.5	69.7	4,570.3	91.8

(a) Percentage of total households.

TABLE 7 : DETAILS OF CLOTHES DRYERS BY METROPOLITAN/NON-METROPOLITAN AREAS, JUNE 1983
(' 000 households)

Type of clothes dryer	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	%(a)
METROPOLITAN										
Clothes dryer—										
Tumble/rotary	500.6	415.5	143.7	131.6	90.4	27.2	10.3	36.3	1,355.5	27.2
Cabinet	51.2	29.3	6.1	18.3	7.1	1.9	*	2.1	116.5	2.3
Households with—										
a clothes dryer	551.7	444.8	149.8	149.8	97.5	29.1	10.9	38.4	1,472.1	29.6
no clothes dryer	585.3	477.0	217.0	185.2	220.7	24.6	22.4	35.6	1,767.9	35.5
Total households	1,137.1	921.8	366.8	335.1	318.2	53.7	33.3	74.0	3,240.0	65.0
NON-METROPOLITAN										
Clothes dryer—										
Tumble/rotary	262.0	175.9	162.7	49.0	32.1	44.8	..	..	726.5	14.6
Cabinet	19.7	14.5	5.1	6.4	*1.7	3.2	..	..	50.6	1.0
Households with—										
a clothes dryer	281.7	190.4	167.8	55.4	33.8	48.1	..	..	777.2	15.6
no clothes dryer	343.5	181.7	245.9	73.0	83.6	36.2	..	..	963.9	19.4
Total households	625.1	372.1	413.7	128.5	117.4	84.3	..	..	1,741.1	35.0
TOTAL										
Clothes dryer—										
Tumble/rotary	762.5	591.3	306.4	180.6	122.5	72.1	10.3	36.3	2,082.1	41.8
Cabinet	70.9	43.8	11.1	24.7	8.8	5.2	*	2.1	167.2	3.4
Households with—										
a clothes dryer	833.4	635.2	317.6	205.3	131.3	77.2	10.9	38.4	2,249.3	45.2
no clothes dryer	928.8	658.7	462.9	258.3	304.3	60.8	22.4	35.6	2,731.8	54.8
Total households	1,762.2	1,293.9	780.5	463.5	435.6	138.0	33.3	74.0	4,981.1	100.0

(a) Percentage of total households.

TABLE 8 : AIR-CONDITIONING BY TYPE, JUNE 1983
(' 000 households)

Type of air-conditioning	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	% (a)
Non-shared—										
Ducted—										
Refrigerative—										
With thermostat	32.7	26.7	3.3	13.4	13.0	*	3.3	*1.5	94.2	1.9
Without thermostat	7.9	4.9	*2.3	4.4	3.2	—	*	*	23.2	0.5
Total	40.5	31.5	5.6	17.9	16.3	*	3.6	1.7	117.4	2.4
Evaporative—										
With thermostat	*2.8	*	—	*1.4	*	—	—	—	5.6	0.1
Without thermostat	23.2	9.0	5.9	10.9	4.6	—	2.5	*	56.2	1.1
Total	26.1	10.3	5.9	12.3	4.7	—	2.5	*	61.9	1.2
Total households; ducted	66.6	41.8	11.5	30.2	20.9	*	6.2	1.8	179.3	3.6
Non-ducted—										
Refrigerative—										
With thermostat	179.5	179.2	38.5	118.9	48.0	*	7.4	5.9	577.8	11.6
Without thermostat	149.6	130.8	33.6	96.9	51.1	*	4.6	2.8	469.6	9.4
Total	329.1	309.9	72.0	215.8	99.1	*0.7	12.0	8.8	1,047.4	21.0
Evaporative—										
With thermostat	4.0	4.3	*1.6	1.8	*0.8	—	—	*	12.9	0.3
Without thermostat	118.2	116.0	39.7	43.4	40.4	*	*1.6	6.8	366.4	7.4
Total	122.2	120.4	41.3	45.2	41.3	*	*1.6	7.0	379.2	7.6
Total households; non-ducted	451.4	430.3	113.3	261.0	140.4	*1.0	13.5	15.8	1,426.7	28.6
Households with—										
Air-conditioning—										
Shared	*	*	—	—	*	—	—	*	*	
Non-shared	518.0	472.2	124.9	291.2	161.3	1.2	19.7	17.6	1,606.0	32.2
Total	518.5	472.4	124.9	291.2	161.5	1.2	19.7	17.7	1,607.0	32.3
No air-conditioning	1,243.8	821.5	655.6	172.4	274.1	136.9	13.7	56.2	3,374.1	67.7
Total Households	1,762.2	1,293.9	780.5	463.5	435.6	138.0	33.3	74.0	4,981.1	100.0

(a) Percentage of total households.

TABLE 9 : ROOM HEATING, MAIN TYPE BY SECONDARY TYPE, JUNE 1983
(' 000 households)

Secondary room heating	N.S.W	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	% (a)
ELECTRIC										
Electric—										
Fixed	125.2	41.1	21.0	52.2	18.8	5.0	*	7.4	270.9	5.4
Portable	85.9	63.3	10.0	29.6	9.6	17.8	*	19.8	236.1	4.8
Both	*3.8	*2.4	*	*1.4	*	*	—	*1.0	9.6	0.2
Total	214.9	106.7	31.6	83.2	28.8	22.8	*	28.2	516.6	10.4
Gas	28.8	26.5	*	18.4	5.3	2.4	—	1.7	84.1	1.7
Oil	39.8	17.6	2.9	12.3	6.3	9.0	—	6.9	94.7	1.9
Wood/solid fuel	71.6	41.3	14.1	22.9	17.2	11.0	—	4.6	182.7	3.7
Other	29.5	5.0	14.2	5.6	5.9	*0.9	—	*1.3	62.4	1.3
No secondary heating	869.3	197.6	357.7	121.2	92.2	26.5	2.1	32.8	1,699.4	34.1
GAS										
Electric—										
Fixed	18.4	76.8	*	13.6	6.5	*	—	*	116.0	2.3
Portable	84.8	275.5	4.3	60.2	23.2	4.0	*	2.8	455.1	9.1
Both	4.4	17.7	*	2.8	*0.8	0.8	—	*	27.5	0.6
Total	107.6	370.0	5.0	76.6	30.5	5.2	*	3.5	598.6	12.0
Gas	*1.6	21.7	—	*	*1.0	*	—	—	24.9	0.5
Oil	*3.2	14.6	*	*1.3	2.2	*	—	*	21.8	0.4
Wood/solid fuel	9.7	56.7	*1.1	3.5	4.9	*1.0	—	*	77.1	1.5
Other	3.9	9.7	*	3.3	5.0	*0.4	—	—	22.6	0.5
No secondary heating	67.4	326.4	4.5	43.0	31.8	1.3	—	*	475.0	9.5
OIL										
Electric—										
Fixed	14.2	14.3	*	7.1	5.4	*1.0	—	*1.2	44.1	0.9
Portable	70.3	47.8	5.0	27.2	23.4	14.1	*	8.2	196.3	3.9
Both	4.7	4.8	*	1.8	*1.1	2.2	—	*0.8	15.6	0.3
Total	89.2	66.9	6.2	36.2	29.9	17.3	*	10.1	256.0	5.1
Gas	*1.6	*2.5	*	*	*	*	—	*	5.8	0.1
Oil	*1.5	*	—	*	*	*	*	*	3.5	0.1
Wood/solid fuel	8.1	8.1	*	2.9	3.7	1.9	—	*1.1	26.2	0.5
Other	4.3	*3.0	*	*0.9	2.5	1.1	—	*	12.5	0.3
No secondary heating	39.8	29.4	11.8	14.8	24.6	2.2	*0.9	1.9	125.4	2.5

For footnotes see end of table

TABLE 9 : ROOM HEATING, MAIN TYPE BY SECONDARY TYPE, JUNE 1983—continued
(* 000 households)

Secondary room heating	N.S.W	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	% (a)
WOOD/SOLID FUEL										
Electric—										
Fixed	21.3	16.4	*1.8	7.0	7.2	4.5	*	*1.6	60.0	1.2
Portable	88.9	75.6	12.9	43.6	36.8	36.3	*	3.7	298.2	6.0
Both	5.0	3.9	*	*1.3	*	3.3	—	*1.0	15.2	0.3
Total	115.2	95.9	15.2	51.9	44.4	44.0	*	6.3	373.5	7.5
Gas	7.3	17.2	*	3.6	3.9	2.3	*	*	35.4	0.7
Oil	8.2	10.9	*	3.1	4.1	3.0	—	*1.0	31.0	0.6
Wood/solid fuel	*3.7	*3.0	*	*	*1.4	*0.4	—	—	9.2	0.2
Other	11.0	4.5	3.9	4.6	8.7	3.4	—	*	36.2	0.7
No secondary heating	76.5	42.6	20.4	22.5	40.1	11.7	*	*1.4	215.3	4.3
OTHER										
Electric—										
Fixed	8.0	*1.9	*2.3	3.8	5.2	*	—	*	21.4	0.4
Portable	39.2	8.2	25.3	8.8	14.3	*0.5	*	*	97.2	2.0
Both	*	*	—	*	*	—	—	*	*2.5	0.1
Total	48.1	10.7	27.6	13.2	19.8	*0.6	*	*0.9	121.1	2.4
Gas	*	*	*	*1.6	*0.8	—	—	—	5.0	0.1
Oil	*2.7	*	*	*1.0	*0.8	*	—	—	6.3	0.1
Wood/solid fuel	5.3	*3.3	*2.5	2.2	4.7	*0.4	—	—	18.5	0.4
Other	*	*	*	—	*	—	—	—	*1.9	..
No secondary heating	62.2	10.5	65.2	9.2	32.7	*0.4	—	*	180.2	3.6
TOTAL HOUSEHOLDS (INCLUDING SHARED ROOM HEATING)										
Electric—										
Fixed	187.1	150.5	26.3	83.7	43.1	11.0	*	10.5	512.5	10.3
Portable	369.2	473.0	57.4	169.5	107.3	72.7	*1.2	35.4	1,285.7	25.8
Both	18.8	29.5	*1.9	7.9	3.0	6.3	—	3.4	70.7	1.4
Total	575.0	653.1	85.6	261.1	153.4	89.9	*1.5	49.3	1,868.9	37.5
Gas	40.7	69.0	*2.0	24.4	11.6	5.0	*	2.4	155.3	3.1
Oil	55.4	45.2	4.3	18.0	13.6	12.6	*	8.2	157.5	3.2
Wood/solid fuel	98.5	112.4	18.5	31.8	31.9	14.7	—	5.9	313.7	6.3
Other	49.7	22.8	19.0	14.4	22.5	5.9	—	1.8	136.0	2.7
No secondary heating	1,186.3	614.9	683.5	216.8	254.2	42.1	31.7	37.6	3,067.1	61.6

(a) Percentage of total households.

TABLE 10 : MATERIAL OF OUTER WALLS BY TYPE OF CEILING INSULATION, JUNE 1983
(Excludes flats and mobile and improvised dwellings)
(' 000 households)

Type of insulation	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia			
									June 1983		November 1980	
									Number	% (a)	Number	% (a)
BRICK VENEER												
Foil	55.6	18.6	18.2	3.0	1.9	1.6	*	*1.3	100.5	2.3	93.9	2.2
Batt/blanket	151.4	213.8	25.1	43.2	11.3	13.8	*	18.2	477.4	10.7	387.3	9.1
Granular/loose fill	38.5	144.2	*	7.9	2.2	8.1	—	20.9	222.7	5.0	177.8	4.2
Foam	5.6	9.8	*1.6	*	*0.9	*0.5	—	*1.3	20.3	0.5	34.5	0.8
Other	*	6.9	*	*	*	*	—	*	9.4	0.2		
Do not know(b)	55.3	65.3	26.7	11.9	6.2	4.0	*	8.5	178.2	4.0	156.5	3.7
No insulation	160.0	97.1	100.4	16.5	16.9	18.7	*	4.1	413.7	9.3	378.6	8.9
Total	467.7	555.6	173.4	83.1	39.6	46.8	*1.5	54.4	1,422.2	31.9	1,228.6	28.9
DOUBLE BRICK												
Foil	15.4	3.9	4.0	7.0	16.8	*	*1.6	*	49.5	1.1	48.1	1.1
Batt/blanket	79.7	46.6	5.1	106.5	67.2	3.0	*	2.6	311.3	7.0	242.4	5.7
Granular/loose fill	6.8	12.7	*	21.4	24.4	1.5	*	*1.5	68.8	1.5	64.6	1.5
Foam	*	*	—	2.2	4.0	*	—	—	7.9	0.2	22.1	0.5
Other	*	*1.8	*	*0.9	*1.1	—	—	—	5.3	0.1		
Do not know(b)	40.1	22.5	6.6	27.3	34.8	3.8	2.9	1.9	139.9	3.1	137.0	3.2
No insulation	188.6	51.4	16.6	67.2	106.1	6.0	*1.3	*1.5	438.8	9.8	473.0	11.1
Total	332.8	139.8	32.7	232.5	254.4	14.8	6.6	7.9	1,021.4	22.9	987.3	23.2
STONE, CONCRETE, CONCRETE BLOCK												
Foil	*1.6	*	*2.5	2.3	*	*	2.1	—	9.8	0.2	..	..
Batt/blanket	6.1	16.0	*2.4	20.9	*1.6	1.4	*1.2	*	49.9	1.1	..	..
Granular/loose fill	*	6.1	*	4.5	*	*0.6	*	*0.8	13.6	0.3	..	..
Foam	—	*	—	*	*	—	—	—	*1.8	..	..	..
Other	*	*	*	*1.1	—	*	—	—	*2.7	..	..	..
Do not know(b)	*1.7	*3.1	8.7	6.6	*	*0.6	2.3	*0.8	24.5	0.5	..	..
No insulation	14.0	11.9	25.2	41.8	5.2	3.0	2.8	*	104.0	2.3	..	..
Total	24.4	39.7	39.9	77.6	8.4	5.8	8.6	2.1	206.4	4.6	..	..
WEATHERBOARD/TIMBER												
Foil	9.4	8.5	10.3	*	*	1.1	*	—	30.8	0.7	31.6	0.7
Batt/blanket	59.1	102.5	20.8	5.2	3.1	11.3	—	*	202.1	4.5	181.2	4.3
Granular/loose fill	11.9	35.6	*1.1	*	*1.0	4.3	—	*	54.4	1.2	58.9	1.4
Foam	*1.8	*3.7	*1.4	*	*	*	—	—	7.4	0.2	17.2	0.4
Other	*	4.6	*	—	*	*	—	—	6.7	0.1		
Do not know(b)	25.2	30.1	31.0	*1.1	2.0	3.6	*	—	93.1	2.1	93.1	2.2
No insulation	160.6	154.2	260.8	6.5	16.8	35.1	*	—	634.2	14.2	722.0	17.0
Total	269.4	339.1	325.7	13.8	23.8	55.9	*	*	1,028.8	23.1	1,104.0	26.0

For footnotes see end of table.

TABLE 10 : MATERIAL OF OUTER WALLS BY TYPE OF CEILING INSULATION, JUNE 1983—continued
 (Excludes flats and mobile and improvised dwellings)
 ('000 households)

Type of insulation	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia			
									June 1983		November 1980	
									Number	% (a)	Number	% (a)
FIBRO/ASBESTOS												
Foil	15.0	*3.5	7.9	1.7	7.1	*	*	—	36.2	0.8	40.3	0.9
Batt/blanket	98.1	23.5	7.4	13.8	10.8	1.2	—	—	154.9	3.5	122.5	2.9
Granular/loose fill	14.3	5.4	*	*1.3	2.3	*0.5	—	*	24.7	0.5	17.3	0.4
Foam	*2.7	*	*2.1	*	*	—	*	—	6.7	0.1	9.7	0.2
Other	*2.1	*	*	*	*	—	—	—	*3.2	..		
Do not know(b)	33.2	6.6	21.0	5.6	8.6	*	*1.4	—	76.6	1.7	68.4	1.6
No insulation	161.2	15.7	83.1	10.3	48.7	2.4	*1.1	*	322.9	7.2	350.4	8.2
Total	326.5	55.8	122.4	33.9	78.0	4.6	3.4	*	625.3	14.0	608.6	14.3
OTHER												
Foil	*2.0	*	*1.8	*	*	*	2.2	*	7.3	0.2	..	..
Batt/blanket	19.0	13.1	3.0	*1.5	*	1.2	*	*	39.4	0.9	..	..
Granular/loose fill	5.3	8.9	*	*	*	1.1	*	*	16.3	0.4	..	..
Foam	*	*	*	—	*	*	*	—	*2.0	..	..	..
Other	*	*	—	—	*	—	—	—	*1.5	..	..	..
Do not know(b)	*2.9	*1.7	*2.4	*	*0.8	*	3.0	—	11.6	0.3	..	..
No insulation	28.2	16.0	17.5	4.3	*1.6	1.8	*1.1	—	70.5	1.6	..	..
Total	58.8	41.4	25.2	6.8	4.0	4.6	7.3	*	148.5	3.3	..	..
TOTAL												
Foil	98.9	36.3	44.6	15.0	26.8	3.6	7.0	1.8	234.0	5.3	232.4	5.5
Batt/blanket	413.3	415.4	63.7	191.2	94.7	31.9	3.1	21.5	1,235.0	27.7	998.2	23.5
Granular/loose fill	77.2	212.9	3.8	35.8	30.5	16.1	*	23.7	400.6	9.0	336.5	7.9
Foam	11.7	16.5	5.4	4.0	6.0	*0.8	*	*1.3	46.2	1.0	93.1	2.2
Other	7.3	14.8	*1.7	2.4	1.8	*0.7	—	*	28.8	0.6		
Total households with ceiling insulation	608.5	695.9	119.2	248.4	159.9	53.1	11.1	48.5	1,944.6	43.7	..	..
Do not know(b)	158.5	129.3	96.5	52.8	53.0	12.6	10.1	11.2	523.9	11.8	496.1	11.7
No insulation	712.6	346.2	503.6	146.6	195.3	66.9	6.7	6.2	1,984.2	44.6	2,096.5	49.3
Total	1,479.6	1,171.4	719.4	447.8	408.1	132.6	27.9	65.9	4,452.7	100.0	4,252.9	100.0

(a) Percentage of total households excluding flats and mobile and improvised dwellings. (b) Households not knowing (i) whether they had insulation; and/or (ii) what type of insulation was installed. Refer to 'Comparison between June 1983 and November 1980 survey results'.

TABLE 11 : MATERIAL OF OUTER WALLS BY TYPE OF WALL INSULATION, JUNE 1983
(excludes flat and mobile and improvised dwellings)
(' 000 households)

Type of insulation	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia			
									June 1983		November 1980	
									Number	% (a)	Number	% (a)
BRICK VENEER												
Foil	48.8	114.0	30.6	8.4	2.9	11.3	*	4.3	220.7	5.0	170.4	4.0
Batt/blanket	15.0	13.5	*1.5	7.2	*1.1	1.1	—	4.1	43.6	1.0	34.8	0.8
Granular/loose fill	*	*3.2	*	*	—	*	—	*	4.8	0.1	11.1	0.3
Foam	*	*	*	*	*	*	—	*0.9	3.4	0.1		
Other	*2.3	*2.2	*2.1	*	—	*	—	*	7.1	0.2		
Do not know(b)	78.4	106.0	33.8	14.8	6.0	6.1	*	12.9	258.3	5.8	227.6	5.4
No insulation	322.2	316.0	104.4	52.1	29.5	27.8	*0.8	31.7	884.4	19.9	784.8	18.4
Total	467.7	555.6	173.4	83.1	39.6	46.8	*1.5	54.4	1,422.2	31.9	1,228.6	28.9
DOUBLE BRICK												
Foil	6.8	4.9	*2.5	3.8	*1.5	1.3	—	*	21.0	0.5	19.3	0.4
Batt/blanket	5.4	*2.6	*	3.9	*1.4	—	—	—	13.5	0.3	12.0	0.3
Granular/loose fill	—	—	—	*0.8	*	—	—	—	*1.5	..	3.4	0.1
Foam	*	*	—	*	*	—	—	—	*1.4	..		
Other	*	*	*	*	*	—	—	—	*1.4	..		
Do not know(b)	39.6	20.4	6.5	26.9	30.0	3.1	2.6	*1.3	130.4	2.9	129.2	3.0
No insulation	280.3	111.3	23.2	196.7	220.0	10.3	4.0	6.4	852.2	19.1	823.4	19.4
Total	332.8	139.8	32.7	232.5	254.4	14.8	6.6	7.9	1,021.4	22.9	987.3	23.2
STONE, CONCRETE, CONCRETE BLOCK												
Foil	*1.5	*	*1.3	*1.1	—	*0.5	*	—	5.9	0.1	..	..
Batt/blanket	*	*	—	*1.1	*	—	—	—	*2.3	..	..	..
Granular/loose fill	*	*	*	*	—	—	—	—	*	..	..	..
Foam	—	—	—	*	—	—	—	—	*	..	..	..
Other	*	*	—	*	—	—	—	—	*	..	..	..
Do not know(b)	*2.6	*3.7	5.7	4.3	*	*0.9	2.1	*	20.3	0.5	..	..
No insulation	18.9	33.8	32.7	70.6	7.6	4.4	6.2	1.6	175.8	3.9	..	..
Total	24.4	39.7	39.9	77.6	8.4	5.8	8.6	2.1	206.4	4.6	..	..
WEATHERBOARD/TIMBER												
Foil	14.0	22.1	8.4	*1.1	*	2.7	—	—	49.1	1.1	44.0	1.0
Batt/blanket	8.9	13.7	*2.1	*	*	*0.6	—	*	26.6	0.6	22.7	0.5
Granular/loose fill	*	*1.9	*	*	*	—	—	—	3.4	0.1	8.4	0.2
Foam	*	*2.2	*	*	—	—	—	—	4.5	0.1		
Other	*	*	*	—	—	*	—	—	*2.8	..		
Do not know(b)	27.4	37.1	30.8	*1.2	1.8	4.2	*	—	102.7	2.3	118.1	2.8
No insulation	215.7	261.0	282.6	10.8	20.5	48.2	*	*	839.6	18.9	910.8	21.4
Total	269.4	339.1	325.7	13.8	23.8	55.9	*	*	1,028.8	23.1	1,104.0	26.0

For footnotes see end of table.

TABLE 11 : MATERIAL OF OUTER WALLS BY TYPE OF WALL INSULATION, JUNE 1983—continued
(excludes flat and mobile and improvised dwellings)
(' 000 households)

Type of insulation	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia			
									June 1983		November 1980	
									Number	% (a)	Number	% (a)
FIBRO/ASBESTOS												
Foil	20.5	8.4	5.3	4.9	3.5	*0.8	*	—	44.1	1.0	41.6	1.0
Batt/blanket	12.8	*2.9	*1.5	4.6	2.5	*	*	—	24.6	0.5	18.6	0.4
Granular/loose fill	*	*	*	*	*	—	—	—	*1.8	..	6.6	0.2
Foam	*1.8	*	*2.4	*	*0.8	*	*	—	6.1	0.1		
Other	*	*	*	*	*	*	—	—	*2.0	..		
Do not know(b)	39.4	8.0	17.9	6.6	7.3	*0.4	*1.2	*	80.9	1.8	71.5	1.7
No insulation	250.6	35.4	94.4	17.1	63.5	3.1	*1.1	*	465.8	10.5	470.4	11.1
Total	326.5	55.8	122.5	33.9	78.0	4.6	3.4	*	625.3	14.0	608.6	14.3
OTHER												
Foil	5.7	7.2	3.6	*	*	*	*	—	17.6	0.4	..	..
Batt/blanket	*2.7	*1.6	—	*0.8	*	*	*	—	6.1	0.1	..	..
Granular/loose fill	—	*	—	—	—	—	—	—	*	..	..	..
Foam	6.8	*2.6	*1.1	*	*	*	*	—	11.0	0.2	..	..
Other	4.2	*2.8	*1.2	—	*	—	*	*	8.7	0.2	..	..
Do not know(b)	4.0	*3.4	2.9	*	*	*0.7	3.5	—	15.2	0.3	..	..
No insulation	35.4	23.4	16.4	5.4	2.5	3.3	2.5	*	89.5	2.0	..	..
Total	58.8	41.4	25.2	6.8	4.0	4.6	7.3	*	148.5	3.3	..	..
TOTAL												
Foil	97.6	157.7	51.7	19.5	8.9	17.0	*1.5	4.5	358.5	8.0	292.0	6.9
Batt/blanket	45.2	34.7	5.3	18.2	6.4	1.8	*0.8	4.2	116.6	2.6	93.2	2.2
Granular/loose fill	*2.1	6.2	*1.3	1.8	*1.0	*	—	*	12.9	0.3	48.2	1.1
Foam	10.5	6.4	5.1	*1.0	*1.7	*0.5	*	0.9	26.5	0.6		
Other	9.6	6.9	4.5	*	*	*0.5	*	*	23.1	0.5		
Total households with wall insulation	165.0	211.9	67.9	41.0	18.6	19.9	2.9	10.3	537.5	12.1	..	..
Do not know(b)	191.5	178.6	97.6	54.1	46.0	15.4	9.9	14.7	607.9	13.6	582.3	13.7
No insulation	1,123.1	780.9	553.8	352.7	343.5	97.2	15.2	40.8	3,307.3	74.3	3,237.2	76.1
Total	1,479.6	1,171.4	719.4	447.8	408.1	132.6	27.9	65.9	4,452.7	100.0	4,252.9	100.0

(a) Percentage of total households excluding flats and mobile and improvised dwellings. (b) Households not knowing (i) whether they had insulation, and/or (ii) what type of insulation was installed. Refer to 'Comparison between June 1983 and November 1980 survey results'.

TABLE 12 : MAIN HEATING, ELECTRIC, BY TYPE, JUNE 1983
(' 000 households)

Type of electric heating	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	%(a)
Central or ducted heating	4.6	13.9	*	*	*	2.8	—	1.9	24.7	0.5
Ducted air-conditioners—										
With thermostat	22.9	10.9	*1.5	6.5	3.4	*	*	*0.9	46.4	0.9
Without thermostat	*3.3	*	*	*	*0.9	—	—	*	6.5	0.1
Total	26.3	12.1	*1.8	7.2	4.2	*	*	*1.0	52.9	1.1
Non-ducted air-conditioners—										
With thermostat	61.7	16.4	7.4	23.0	8.1	*	*	2.4	119.3	2.4
Without thermostat	33.6	9.3	6.9	11.6	5.9	*	*	*	67.9	1.4
Total	95.3	25.7	14.3	34.6	13.9	*	*	2.7	187.2	3.8
Heaters—built in—										
With thermostat and fan	24.5	45.1	*2.3	3.6	*	11.5	—	17.1	104.5	2.1
With thermostat, without fan	*3.2	*2.5	*	*	—	2.8	—	*	9.3	0.2
Without thermostat, with fan	7.0	23.1	3.0	7.1	*	4.5	*	4.7	50.2	1.0
Without thermostat or fan	14.4	21.5	6.3	3.9	3.0	1.1	—	*	50.6	1.0
Total	49.1	92.2	11.9	14.7	4.1	19.8	*	22.6	214.6	4.3
Heaters—portable—										
With thermostat and fan	107.6	25.7	28.2	19.2	14.6	5.7	*	7.4	208.6	4.2
With thermostat, without fan	108.3	12.4	28.7	10.3	8.4	3.2	—	3.4	174.8	3.5
Without thermostat, with fan	153.9	39.1	71.7	29.8	23.5	6.4	*	4.2	328.7	6.6
Without thermostat or fan	539.7	74.1	238.2	81.5	63.4	10.2	*1.2	4.1	1,012.3	20.3
Total	909.5	151.3	366.7	140.8	109.9	25.6	*1.6	19.1	1,724.5	34.6
Total households with electric as main heating	1,084.8	295.2	395.3	197.8	132.6	48.7	2.2	47.4	2,204.0	44.2

(a) Percentage of total households.

TABLE 13 : MAIN HEATING, OIL, BY TYPE, JUNE 1983
(' 000 households)

Type of oil heating	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	%(a)
Central or ducted heating	4.8	12.3	*	*	*	*0.7	*	3.3	23.3	0.5
Other, with thermostat—										
With fan	6.8	7.4	*1.1	5.3	3.2	*0.5	*	*0.8	25.3	0.5
Without fan	5.8	*2.0	5.9	*1.3	*	*	—	—	15.8	0.3
Total	12.6	9.4	7.1	6.6	3.9	*0.7	*	*0.8	41.1	0.8
Other, without thermostat—										
With fan	102.0	70.7	5.2	38.9	45.2	19.2	*	8.2	289.9	5.8
Without fan	8.7	*3.0	5.8	*1.1	6.7	*	—	*	25.9	0.5
Total	110.7	73.7	11.0	40.0	51.9	19.4	*	8.5	315.8	6.3
Total households with oil as main heating	128.0	95.4	18.5	47.3	56.4	20.7	*1.3	12.6	380.2	7.6

(a) Percentage of total households.

TABLE 14 : MAIN HEATING, GAS, BY TYPE, JUNE 1983
(' 000 households)

Type of gas heating	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	%(a)
Central or ducted heating	*3.8	141.9	*	*1.1	*	—	—	*	147.9	3.0
Other, with thermostat—										
With fan	13.6	262.7	*	41.9	8.6	*1.1	—	2.0	330.4	6.6
Without fan	*	5.4	—	*1.0	*	*	—	—	8.5	0.2
Total	15.0	268.1	*	42.9	9.3	*1.1	—	2.0	338.9	6.8
Other, without thermostat—										
With fan	59.6	253.3	4.2	31.0	26.3	5.2	—	*0.8	380.3	7.6
Without fan	95.1	54.1	5.6	38.6	30.7	0.9	*	*1.0	226.2	4.5
Total	154.7	307.4	9.8	69.5	57.0	6.1	*	1.8	606.5	12.2
Total households with gas as main heating	173.5	717.4	10.4	113.5	66.7	7.3	*	4.2	1,093.3	21.9

(a) Percentage of total households.

TABLE 15 : COOKING AND HEATING BY TYPE OF GAS USED, JUNE 1983
(' 000 households)

Type of gas used and purpose	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	%(a)
Mains gas—										
Cooking	305.8	547.4	80.5	165.2	88.5	1.8	—	*0.8	1,190.0	23.9
Room heating	126.1	635.0	3.8	111.8	52.3	1.5	—	*1.4	931.9	18.7
Water heating	182.9	467.4	39.9	151.9	75.8	1.3	—	*0.8	920.0	18.5
Other	*	8.6	*	*1.1	*	—	—	—	10.7	0.2
Bottled gas—										
Cooking	51.0	45.2	50.6	15.1	59.3	2.4	4.8	*1.2	229.6	4.6
Room heating	64.6	32.7	6.8	10.1	15.3	9.2	*	3.7	142.6	2.9
Water heating	11.1	13.9	23.6	6.3	20.3	*0.4	—	*1.2	76.9	1.5
Other	*	—	*	—	—	—	—	—	*	..
Households using gas—										
Mains	345.8	727.2	85.6	190.4	111.2	2.5	—	*1.4	1,464.0	29.4
Bottled	103.1	65.1	58.5	22.8	70.5	11.3	4.8	4.3	340.4	6.8
Total	448.8	792.3	144.1	213.2	181.7	13.7	4.8	5.6	1,804.3	36.2

(a) Percentage of total households.

TABLE 16 : ENERGY USED BY TYPE BY METROPOLITAN/NON-METROPOLITAN AREAS, JUNE 1983
(' 000 households)

Type of energy	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
									Number	%(a)
METROPOLITAN										
Electricity only	596.3	184.6	204.5	75.4	61.5	14.9	17.6	35.1	1,190.0	23.9
Electricity and gas	243.1	516.9	69.7	139.4	53.8	1.9	2.2	4.2	1,031.3	20.7
Electricity and oil	61.8	39.8	7.4	27.7	15.7	10.9	*	17.3	180.7	3.6
Electricity and other	154.8	56.9	64.2	44.4	100.0	21.0	9.7	12.8	463.9	9.3
Electricity, gas and oil	15.5	25.7	*2.5	8.2	5.8	*	*	*	58.1	1.2
Electricity, gas and other	55.3	84.5	16.9	33.4	53.9	1.3	2.5	*1.3	249.1	5.0
Electricity, oil and other	7.8	10.0	*1.6	5.3	22.2	3.4	*1.0	3.1	54.4	1.1
Electricity, gas, oil and other	*2.5	*3.3	*	*1.3	5.3	*	—	—	12.6	0.3
Total	1,137.1	921.8	366.8	335.1	318.2	53.7	33.3	74.0	3,240.0	65.0
NON-METROPOLITAN										
Electricity only	227.4	65.7	256.6	33.6	16.6	12.9	..	..	612.8	12.3
Electricity and gas	80.7	97.3	36.3	16.5	13.0	5.0	..	..	248.8	5.0
Electricity and oil	59.6	28.4	7.5	16.1	2.3	13.5	..	..	127.4	2.6
Electricity and other	183.8	98.1	92.3	43.8	28.1	43.7	..	..	489.7	9.8
Electricity, gas and oil	11.6	9.5	*	2.1	3.5	*0.9	..	..	28.6	0.6
Electricity, gas and other	38.7	50.2	17.1	11.9	38.9	3.9	..	..	160.7	3.2
Electricity, oil and other	22.0	18.0	*2.4	4.0	7.5	3.9	..	..	57.9	1.2
Electricity, gas, oil and other	*	4.9	*	*	7.4	*	..	..	15.1	0.3
Total	625.1	372.1	413.7	128.5	117.4	84.3	..	..	1,741.1	35.0
TOTAL										
Electricity only	823.7	250.3	461.1	109.1	78.1	27.8	17.6	35.1	1,802.8	36.2
Electricity and gas	323.7	614.2	106.0	155.9	66.8	7.0	2.2	4.2	1,280.1	25.7
Electricity and oil	121.4	68.2	14.8	43.8	18.0	24.4	*	17.3	308.1	6.2
Electricity and other	338.6	155.0	156.5	88.2	128.1	64.8	9.7	12.8	953.6	19.1
Electricity, gas and oil	27.2	35.2	3.3	10.4	9.3	1.1	*	*	86.7	1.7
Electricity, gas and other	94.0	134.7	34.0	45.2	92.8	5.2	2.5	*1.3	409.8	8.2
Electricity, oil and other	29.8	28.0	4.0	9.3	29.8	7.3	*1.0	3.1	112.3	2.3
Electricity, gas, oil and other	3.9	8.2	*	1.7	12.7	*	—	—	27.7	0.6
Total	1,762.2	1,293.9	780.5	463.5	435.6	138.0	33.3	74.0	4,981.1	100.0

(a) Percentage of total households

APPENDIX 1

TECHNICAL NOTE ON SAMPLING VARIABILITY

Estimation procedures

The estimates given in this publication were derived by use of a ratio estimation procedure based on the age/sex characteristics of the heads of the households and distribution of the population of Australia.

Reliability of the estimates

Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings, they are subject to sampling variability; that is, they may differ from the figures that would have been produced if all the dwellings had been included in the survey. One measure of the likely difference is given by the *standard error*, which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included, and about nineteen chances in twenty that the difference will be less than two standard errors. Another measure of the likely difference is the *relative standard error*, which is obtained by expressing the standard error as a percentage of the estimate.

Space does not allow for the separate indication of the standard errors of all estimates in this publication. A table of standard errors of household estimates for general application is given on the following page. Since they are averages, based on calculations for a limited number of past labour force surveys (which are conducted monthly) over a wide range of labour force characteristics, these figures will not give a precise measure of the standard error of a particular estimate but they will provide an indication of its magnitude.

An example of the calculation and the use of standard errors in relation to households is as follows. Table 3 shows that the estimated number of households in S.A. with one one door fridge is 172,200. Since this estimate is between 100,000 and 200,000 in the S.A. column of the standard error table, the standard error will be between 2,100 and 2,600 and can be approximated by 2,500 (rounded to the nearest 100). Therefore, there are about two chances in three that the value that would have been produced if all dwellings had been included in the survey will fall in the range 169,700 to 174,700 and about nineteen chances in twenty that the value will fall in the range 167,200 to 177,200. As can be seen from the standard error table, *the smaller the estimates, the higher is the relative standard error*. Very small estimates are thus subject to such high standard errors (relative to the size of the estimate) as to detract seriously from their value for most reasonable uses. In the tables in this publication, estimates less than the lowest levels shown in the standard error table have not been published. Although figures for these small components can in some cases be derived by subtraction, they should not be regarded as reliable.

Proportions and percentages formed from the ratio of two estimates are also subject to sampling errors. The size of the error depends on the accuracy of both the numerator and denominator. The formula for the relative standard error (RSE) of a proportion is given below:

$$RSE(X/Y) = \sqrt{[RSE(X)]^2 - [RSE(Y)]^2}$$

Considering the example above, the proportion of households in S.A. (463,500) with one one door fridge (172,200) is 37.2%. Since the standard error for 463,500 is approximately 3,200 the relative standard error is 0.7%. The relative standard error of 172,200 is 1.5%. Applying the above formula, the relative standard error of the proportion is $\sqrt{(1.5)^2 - (0.7)^2}$ or 1.3% giving a standard error for the proportion (37.2%) of 0.5 percentage points. Therefore, there are about two chances in three that the proportion of households in S.A. with one one door fridge is between 36.7% and 37.7% and nineteen chances in twenty that the proportion is within the range 36.2% to 38.2%.

The imprecision due to sampling variability, which is measured by the standard error, should not be confused with inaccuracies that may occur because of imperfections in reporting by interviewers and respondents and errors made in the coding and processing of data. Inaccuracies of this kind are referred to as the *non-sampling error*, and they may occur in any enumeration, whether it be a full count or only a sample.

TABLE A. STANDARD ERRORS OF ESTIMATES

Size of Estimate	N.S.W	Vic.	Qld	S.A.	W.A.	Tas.	N. T.	A. C. T.	Australia	
									per cent of estimate	
— number —										
600						200				
800				310	320	230	310	300		
1,000			410	340	350	250	340	330		
1,500	600	610	500	410	430	300	410	390	560	37.0
2,000	690	700	570	460	490	340	470	440	650	32.3
2,500	780	780	630	510	540	380	510	480	720	28.9
3,000	850	850	690	550	590	410	550	510	800	26.5
3,500	920	910	740	590	630	430	590	540	860	24.6
4,000	980	960	780	620	660	460	620	560	920	23.0
4,500	1,000	1,000	820	650	700	480	650	590	970	21.6
5,000	1,100	1,100	860	680	730	500	680	610	1,000	20.0
6,000	1,200	1,200	930	730	790	530	740	650	1,100	18.0
10,000	1,500	1,400	1,200	900	970	640	910	750	1,400	14.0
20,000	2,000	1,900	1,500	1,200	1,300	810	1,200	910	2,000	10.0
50,000	3,000	2,700	2,200	1,600	1,700	1,100	1,700	1,100	2,900	5.8
100,000	3,900	3,500	2,800	2,100	2,200	1,300		1,300	3,900	3.9
200,000	5,000	4,400	3,600	2,600	2,700	1,500			5,100	2.6
300,000	5,800	5,000	4,100	2,900	3,000				6,000	2.0
500,000	6,900	5,800	4,800	3,300	3,500				7,200	1.4
1,000,000	8,500	7,000	5,900						9,100	0.9
2,000,000	10,000	8,400							11,000	0.6
5,000,000									15,000	0.3

Australian Bureau of Statistics
FOR INFORMATION

HOUSEHOLD ENERGY SURVEY : HOUSEHOLD CONSUMPTION; AUSTRALIA;
JUNE 1983 (ABS Catalogue No. 8213.0).

This publication, containing results of the second stage of the June 1983 Household Energy Survey, will be released by the ABS about May 1984. More detail is included in the explanatory notes of catalogue number 8212.0 to which this notice is attached.

If you did not include 8213.0 when you renewed your ABS publications subscription for 1984 and would like a copy mailed please complete the coupon below and return it to:

Mailing List Service
Information Services
Australian Bureau of Statistics
PO Box 10
BELCONNEN ACT 2616

To - Australian Bureau of Statistics

Please add me to your mailing list for ☐ copies of HOUSEHOLD ENERGY SURVEY: HOUSEHOLD CONSUMPTION; AUSTRALIA; JUNE 1983 (8213.0).

Name

Position

Organisation

Address

..... Post Code

My ABS ACCOUNT NUMBER (top left corner of address label) is -

--	--	--	--	--	--	--	--	--	--

(for mailing list purposes only)

